


ROBINSON, District Judge

I. INTRODUCTION

Plaintiff Intellectual Ventures I, LLC (“IV I”) and Intellectual Ventures II, LLC (“IV II”) (collectively “IV”) brought this patent infringement action against defendant Motorola Mobility, Inc. (“Motorola”) on October 6, 2011, alleging infringement of six patents: U.S. Patent Nos. 7,810,144 (“the ‘144 patent”), 6,412,953 (“the ‘953 patent”), 7,409,450 (“the ‘450 patent”), 7,120,462 (“the ‘462 patent”), 6,557,054 (“the ‘054 patent”), and 6,658,464 (“the ‘464 patent”). (D.I. 1) Motorola answered and asserted affirmative defenses of, *inter alia*, failure to state a claim, non-infringement, invalidity, prosecution history estoppel, the equitable doctrines of waiver, acquiescence, laches and unclean hands, and statutory time limitation on damages. (D.I. 10) Motorola also asserted counterclaims for non-infringement and invalidity. *Id.*

On August 20, 2013, Motorola filed a motion for summary judgment of invalidity (D.I. 230), and on September 10, 2013, Motorola filed a motion for summary judgment of non-infringement (D.I. 252). In a memorandum opinion and order dated January 2, 2014, the court issued its claim construction and resolved several summary judgment motions, finding no infringement of claim 26 of the ‘144 patent and invalidity of claim 1 of the ‘953 patent based on the asserted prior art. (D.I. 284) On January 8, 2014, the court limited trial to those issues related to the ‘462, ‘054 and ‘464 patents. (D.I. 288)

A nine-day jury trial was held on January 24 - February 4, 2014. The trial resulted in a hung jury and a mistrial was declared. The court granted in part and denied in part Motorola’s motion for judgment as a matter of law, granting judgment as a matter of law with respect to invalidity of claims 1 and 8 of the ‘464 patent. (D.I. 319)

The court set two new trial dates for the '144, '450, '054 and '462 patents, with the first trial to begin on March 16, 2015. Presently before the court is Motorola's supplemental brief on patent eligibility and indefiniteness.¹ (D.I. 360) The court has jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

II. BACKGROUND

A. The Parties

IV I and IV II are limited liability companies organized and existing under the laws of the State of Delaware, with their principal place of business in Bellevue, Washington. (D.I. 1 at ¶¶ 1-2) IV I owns the '144, '450, '054, and '464 patents. (*Id.* at ¶¶ 10, 14, 18, 20) IV II is the exclusive licensee of the '953 patent and owns the '462 patent. (*Id.* at ¶¶ 12, 16)

Motorola is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business in Libertyville, Illinois. (*Id.* at ¶ 3) It makes, manufactures, and/or sells the accused products. (*Id.* at ¶ 28)

B. The Patents

1. The '054 Patent

The '054 patent, titled "Method and System for Distributing Updates by Presenting Directory of Software Available for User Installation That Is Not Already Installed on User Station," was filed April 20, 2000 and issued April 29, 2003.² The

¹ The parties submitted briefing pursuant to the court's January 6, 2015 letter. (D.I. 358)

² The '054 patent is a continuation of application no. 08/982,157 filed on December 1, 1997, which is a continuation of application no. 08/641,010, filed on April 29, 1996,

invention relates to “a method and corresponding system for distributing updates for a plurality of different products to a plurality of uncoordinated user stations via a non-proprietary network.” (’054 patent, col. 1:30-34) The claimed invention purports to improve upon the “expense[]” and “time lag” of information products “replicated in computer-readable form on magnetic or optical storage diskettes” by utilizing “electronic transfer from a central computer server to a subscriber’s computer over common carriers or wide area networks.” (*Id.* at col. 1:40-62)

2. The ‘450 Patent

The ‘450 patent, titled “Transmission Control Protocol/Internet Protocol (TCP/IP) Packet-Centric Wireless Point to Multi-Point (PTMP) Transmission System Architecture,” was filed February 28, 2005 and issued August 5, 2008.³ The ‘450 patent claims a system and method for “coupling one or more subscriber customer premise equipment (CPE) stations with a base station over a shared wireless bandwidth using a packet-centric protocol; and allocating the wireless bandwidth and system resources based on contents of packets.” (’450 patent, Abstract) The invention specifically relates to “a system and method for implementing a QoS [quality of service] aware wireless point-to-multi-point transmission system.” (*Id.* at col. 3:27-30)

3. The ‘144 Patent

which is a continuation-in-part of application no. 08/251,824, filed on May 31, 1994, which is a continuation of application no. 08/251,724 filed on May 31, 1994.

³ The ‘450 patent is a continuation of application no. 09/349,477, filed on July 9, 1999, which claims priority from provisional application no. 60/092,452 filed on July 10, 1998.

The '144 patent, titled "File Transfer System for Direct Transfer Between Computers," was filed on April 7, 2009 and issued on October 5, 2010.⁴ The '144 patent "relates to transferring computer files electronically from one location to another, and more particularly to electronic transfer of computer files directly between two or more computers or computing devices." ('144 patent, col. 2:4-7)

III. STANDARDS OF REVIEW

A. Summary Judgment

"The court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). The moving party bears the burden of demonstrating the absence of a genuine issue of material fact. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 415 U.S. 574, 586 n.10 (1986). A party asserting that a fact cannot be – or, alternatively, is – genuinely disputed must support the assertion either by citing to "particular parts of materials in the record, including depositions, documents, electronically stored information, affidavits or declarations, stipulations (including those made for the purposes of the motions only), admissions, interrogatory answers, or other materials," or by "showing that the materials cited do not establish the absence or presence of a genuine dispute, or that an adverse party cannot produce admissible evidence to support the fact." Fed. R. Civ. P. 56(c)(1)(A) & (B). If the moving party has

⁴ The '144 patent is a continuation of application no. 10/657,221, filed on September 9, 2003, which is a continuation of application no. 10/167,697, filed on June 13, 2002, which is a continuation of application no. 09/694,472, filed on October 24, 2000, which is a continuation of application no. 09/190,219, filed on November 13, 1998, which claims priority to provisional application no. 60/065,533, filed on November 13, 1997.

carried its burden, the nonmovant must then "come forward with specific facts showing that there is a genuine issue for trial." *Matsushita*, 415 U.S. at 587 (internal quotation marks omitted). The court will "draw all reasonable inferences in favor of the nonmoving party, and it may not make credibility determinations or weigh the evidence." *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000).

To defeat a motion for summary judgment, the non-moving party must "do more than simply show that there is some metaphysical doubt as to the material facts." *Matsushita*, 415 U.S. at 586-87; *see also Podohnik v. U.S. Postal Service*, 409 F.3d 584, 594 (3d Cir. 2005) (stating party opposing summary judgment "must present more than just bare assertions, conclusory allegations or suspicions to show the existence of a genuine issue") (internal quotation marks omitted). Although the "mere existence of some alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment," a factual dispute is genuine where "the evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Anderson v. Liberty Lobby, Inc.*, 411 U.S. 242, 247-48 (1986). "If the evidence is merely colorable, or is not significantly probative, summary judgment may be granted." *Id.* at 249-50 (internal citations omitted); *see also Celotex Corp. v. Catrett*, 411 U.S. 317, 322 (1986) (stating entry of summary judgment is mandated "against a party who fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial").

B. Invalidity

1. 35 U.S.C. § 101

The standard of proof to establish the invalidity of a patent is “clear and convincing evidence.” *Golden Blount, Inc. v. Robert H. Peterson Co.*, 365 F.3d 1054, 1058 (Fed. Cir. 2004); *see also, Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335, 1338-39 (Fed. Cir. 2013), vacated sub nom. *WildTangent, Inc. v. Ultramercial, LLC*, — U.S. —, 134 S.Ct. 2870 (2014). Whether a claim is drawn to patent-eligible subject matter under 35 U.S.C. § 101 is a threshold inquiry to be determined as a matter of law in establishing the validity of the patent. *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1277 (Fed. Cir. 2013), *aff'd, Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, — U.S. —, 134 S.Ct. 2347 (2014); *In re Bilski*, 545 F.3d 943, 950 (Fed. Cir. 2008) (citing *In re Comiskey*, 499 F.3d 1365, 1371 (Fed. Cir. 2007)) (“*Bilski I*”). Section 101 provides that patentable subject matter extends to four broad categories, including: “new and useful process[es], machine[s], manufacture, or composition[s] of matter.” 35 U.S.C. § 101; *see also Bilski v. Kappos*, 561 U.S. 593, 601 (2010) (“*Bilski II*”); *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980). A “process” is statutorily defined as a “process, art or method, and includes a new use of a known process, machine manufacture, composition of matter, or material.” 35 U.S.C. § 100(b). The Supreme Court has explained:

A process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing. If new and useful, it is just as patentable as is a piece of machinery. In the language of the patent law, it is an art. The machinery pointed out as suitable to perform the process may or may not be new or patentable; whilst the process itself may be altogether new, and produce an entirely new result. The process requires that certain things should be done with

certain substances, and in a certain order; but the tools to be used in doing this may be of secondary consequence.

Diamond v. Diehr, 450 U.S. 175, 182–83 (1981) (internal quotations omitted).

The Supreme Court recognizes three “fundamental principle” exceptions to the Patent Act’s subject matter eligibility requirements: “laws of nature, physical phenomena, and abstract ideas.” *Bilski II*, 561 U.S. at 601. The Supreme Court has held that “[t]he concepts covered by these exceptions are ‘part of the storehouse of knowledge of all men ... free to all men and reserved exclusively to none.’” *Bilski II*, 561 U.S. at 602 (quoting *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948)). “[T]he concern that drives this exclusionary principle is one of pre-emption,” that is, “that patent law not inhibit further discovery by improperly tying up the future use of these building blocks of human ingenuity.” *Alice*, 134 S.Ct. at 2354 (citing *Bilski II*, 561 U.S. at 611-12 and *Mayo Collaborative Services v. Prometheus Labs., Inc.*, 566 U.S. —, 132 S.Ct. 1289, 1301 (2012)).

Although a fundamental principle cannot be patented, the Supreme Court has held that “an **application** of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection,” so long as that application would not preempt substantially all uses of the fundamental principle. *Bilski II*, 561 U.S. at 612 (quoting *Diehr*, 450 U.S. at 187) (internal quotations omitted); *Bilski I*, 545 F.3d at 954. The Supreme Court recently reiterated the

framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts. If so,

we then ask, “[w]hat else is there in the claims before us?” To answer that question, we consider the elements of each claim both individually and “as an ordered combination” to determine whether the additional elements “transform the nature of the claim” into a patent-eligible application. We have described step two of this analysis as a search for an “‘inventive concept’”—i.e., an element or combination of elements that is “sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.”

Alice Corp., 134 S.Ct. at 2355 (citing *Mayo*, 132 S.Ct. at 1294, 1296-98).⁵

“[T]o transform an unpatentable law of nature into a patent-eligible **application** of such a law, one must do more than simply state the law of nature while adding the words ‘apply it.’” *Mayo*, 132 S.Ct. at 1294 (citing *Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972)). It is insufficient to add steps which “consist of well-understood, routine, conventional activity,” if such steps, “when viewed as a whole, add nothing significant beyond the sum of their parts taken separately.” *Id.* at 1298. “Purely ‘conventional or obvious’ ‘[pre]-solution activity’ is normally not sufficient to transform an unpatentable law of nature into a patent-eligible application of such a law.” *Id.* (citations omitted). Also, the “prohibition against patenting abstract ideas ‘cannot be circumvented by attempting to limit the use of the formula to a particular technological environment’ or adding ‘insignificant postsolution activity.’” *Bilski II*, 561 U.S. at 610-11 (citation

⁵The machine-or-transformation test still may provide a “useful clue” in the second step of the *Alice* framework. *Ultramercial, Inc. v. Hulu, LLC*, Civ. No. 2010–1544, 2014 WL 5904902, at *6 (Fed. Cir. November 14, 2014) (citing *Bilski II*, 561 U.S. at 604 and *Bancorp Servs., L.L.C., v. Sun Life Assurance Co. of Can.*, 687 F.3d 1266, 1278 (Fed. Cir. 2012)). A claimed process can be patent-eligible under § 101 if: “(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing.” *In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008) (en banc), *aff’d on other grounds*, *Bilski II*, 561 U.S. 593.

omitted). For instance, the “mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” *Alice*, 134 S.Ct. at 2358. “Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of ‘additional featur[e]’ that provides any ‘practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.’” *Id.* (citations omitted).

The court finds the comparison of *Bancorp Servs., LLC v. Sun Life Assurance Co. of Canada*, 687 F.3d 1266 (Fed. Cir. 2012), to *SiRF Tech., Inc. v. Int’l Trade Comm’n*, 601 F.3d 1319 (Fed. Cir. 2010), instructive. In *Bancorp*, where the asserted patents disclosed “specific formulae for determining the values required to manage a stable value protected life insurance policy,” the district court granted summary judgment of invalidity under § 101. *Bancorp*, 687 F.3d at 1270. Under the machine prong of the machine or transformation test, the district court found that “the specified computer components are no more than objects on which the claimed methods operate, and that the central processor is nothing more than a general purpose computer programmed in an unspecified manner.” *Id.* at 1273. In affirming the district court’s findings, the Federal Circuit explained that

the use of a computer in an otherwise patent-ineligible process for no more than its most basic function - making calculations or computations - fails to circumvent the prohibition against patenting abstract ideas and mental processes. As we have explained, “[s]imply adding a ‘computer aided’ limitation to a claim covering an abstract concept, without more, is insufficient to render the claim patent eligible.” *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012).

To salvage an otherwise patent-ineligible process, a computer must be integral to the claimed invention, facilitating the process in a way that a person making calculations or computations could not.

Id. at 1278. Ultimately, the Federal Circuit concluded that “[t]he computer required by some of Bancorp’s claims is employed only for its most basic function, the performance of repetitive calculations, and as such does not impose meaningful limits on the scope of those claims.” *Id.* at 1278.

In contrast to *Bancorp*, the Federal Circuit in *SiRF* found that a GPS receiver was “integral” to the claims at issue and, therefore, the machine or transformation test was satisfied. *SiRF*, 601 F.3d at 1332. As in *Bancorp*, the *SiRF* Court emphasized that a machine will only “impose a meaningful limit on the scope of a claim [when it plays] a significant part in permitting the claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be achieved more quickly, i.e., through the utilization of a computer for performing calculations.” *Id.* at 1333. After noting how the GPS receiver was specifically involved in each step of the method, the Court concluded that “the use of [the] GPS receiver is essential to the operation of the claimed methods.” *Id.*

In sum, although it is “clear that computer-based programming constitutes patentable subject matter so long as the basic requirements of [35 U.S.C.] § 101 are met,” *AT&T*, 172 F.3d at 1360, the requirements of § 101 as applied to this area of technology have been a moving target, from the complete rejection of patentability for

computer programs⁶ to the much broader enunciation of the test in *State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998), *abrogated by In re Bilski*, 545 F.3d 943., that is, “a computer-implemented invention was considered patent-eligible so long as it produced a ‘useful, concrete and tangible result.’” *DDR Holdings, LLC v. Hotels.Com, L.P.*, 773 F.3d 1245, 1255 (Fed. Cir. 2014). As instructed by the Federal Circuit in *DDR Holdings*, the Court’s most recent attempt to bring clarity to this area of the law: (1) “recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible,” *id.* at 1256; (2) “mathematical algorithms, including those executed on a generic computer, are abstract ideas,” *id.*; (3) “some fundamental economic and conventional business practices are also abstract ideas,” *id.*; and (4) general use of the Internet “to perform an abstract business practice (with insignificant added activity)” does not pass muster under § 101, *id.* at 1258. In order for claims addressing “Internet-centric challenges” to be patent eligible,⁷ the claims must do more than

recite a commonplace business method aimed at processing business information, applying a known business process to the particular technological environment of the Internet, or creating or altering contractual relations using generic computer functions and conventional network operations,

⁶See, e.g., 33 Fed. Reg. 15581, 15609-10 (1968). Indeed, in his dissent in *Diamond v. Diehr*, 450 U.S. 175 (1981), Justice Stevens’s solution was to declare all computer-based programming unpatentable. *Id.* at 219

⁷ Although the court understands that the advent of the Internet inspired countless inventive ways of accomplishing routine tasks better, faster, cheaper – indeed, both the PTO and the Federal Circuit considered such ingenuity sufficiently inventive under § 101 to be patent eligible – apparently such is not the case under the current legal reasoning.

such as the claims in *Alice*, *Ultramercial*, *buySAFE*, *Accenture*, and *Bancorp*.

Id. at 1259 (citing *Alice*, 134 S.Ct. at 2359; *Ultramercial*, 2014 WL 5904902, at *5, *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014); *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1344-45 (Fed. Cir. 2013); *Bancorp*, 687 F.3d at 1278).

2. 35 U.S.C. § 112, ¶ 2

The definiteness requirement is rooted in § 112, ¶ 2, which provides that “the specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.” “A determination of claim indefiniteness is a legal conclusion that is drawn from the court’s performance of its duty as the construer of patent claims.” *Personalized Media Comm., LLC v. Int’l Trade Com’n*, 161 F.3d 696, 705 (Fed. Cir. 1998). Reiterating the public notice function of patents, the Supreme Court recently explained that “a patent must be precise enough to afford clear notice of what is claimed, thereby ‘appris[ing] the public of what is still open to them.’” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014) (citations omitted). In balancing the need for clarity with the inherent limitations of the English language, 35 U.S.C. § 112, ¶ 2 requires “that a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.” *Id.*

IV. DISCUSSION

A. Invalidity Under 35 U.S.C. § 101

1. The ‘054 Patent

Motorola alleges that the asserted claims⁸ are drawn to unpatentable subject matter under 35 U.S.C. § 101. Independent claim 181, which is representative of both asserted independent claims, recites:

181. A computer implemented method for distributing software updates from a remote computer system to a user station, the method comprising:

presenting, at the user station, as a function of an identification of software already installed on the user station, a directory of software updates available for installation on the user station and not already installed on the user station;

sending to the remote computer system over a communications network a selection of software updates for distribution to the user station, wherein the selection of software updates is selected at the user station as a function of the directory; and

receiving from the remote computer system over the communications network software updates indicated by the selection.

('054 patent, col. 72:48-63)

Applying the analytical framework of *Alice*, the court first “determine[s] whether the claims at issue are directed to one of those patent-ineligible concepts,” namely, laws of nature, natural phenomena, and abstract ideas. 134 S. Ct. at 2354-55. Motorola contends that the asserted claims of the '054 patent are directed to the abstract idea of “distributing software updates to a computer.” (D.I. 360 at 3) In this regard, Motorola

⁸ IV asserts independent claim 151 and the corresponding dependent claims 159 and 162, as well as independent claim 181 and the corresponding dependent claims 189 and 192, of the '054 patent.

offers the following chart detailing how each step of independent claim 181⁹ may be performed by a human without a computer.

Claim Language	Performance Without a Computer
181. A computer implemented method for distributing software updates from a remote computer system to a user station, the method comprising:	
(a) presenting, at the user station, as a function of an identification of software already installed on the user station, a directory of software updates available for installation on the user station and not already installed on the user station;	A user tells a software seller which software programs are installed on his or her computer. The software seller then tells the user which programs have an updated version available.
(b) sending to the remote computer system over a communications network a selection of software updates for distribution to the user station, wherein the selection of software updates is selected at the user station as a function of the directory; and	The user tells the software seller which new version he or she wants.
(c) receiving from the remote computer system over the communications network software updates indicated by the selection.	The software seller hands to the user disks containing the new versions of software requested by the user.

In contrast, IV characterizes the inventive concept of the '054 patent as "automatically scanning the user's computer, presenting a directory of software for which the system has determined that an update is available, and managing the process almost entirely through the inventive transporter software." (D.I. 363 at 1) IV

⁹Independent claim 151 is identical to claim 181, with the exception of excluding the clause "and not already installed on the user station" at the end of the first limitation. Dependent claims 159, 162, 189 and 192 require that the software updates be "automatically installed" and that the "communications network" include the Internet.

argues that the invention cannot be divorced from its computerized medium, noting that, at a minimum, specific software and hardware is needed to “present . . . a directory of software updates.” IV contends that the invention differs from the “conventional scenario” of a user finding, acquiring and installing updates by disclosing “a computer-enabled process where now the operations of finding, acquiring, and installing updates are generally automated, can be performed on virtually any machine, and over a non-proprietary network.” (D.I. 363 at 4; see *also* D.I. 335 at 495:3-500:30)

While the claims of the ‘054 patent do not recite a mathematical algorithm or a fundamental economic or longstanding commercial practice, they nonetheless recite nothing more than an abstraction with “no particular concrete or tangible form.” *Ultramercial*, 2014 WL 5904902, at *4. When broken into their fundamental elements, the independent claims recite: (1) presenting a directory of software updates at the user station; (2) selecting and transmitting the desired software updates; and (3) receiving the requested software updates. Although IV argues that the invention consists of more than the application of an abstract concept on a computer by virtue of reciting a “specific technological solution,” the claims generically recite the steps of “presenting,” “sending,” and “receiving,” with no description of the underlying programming. Moreover, the limitations provided by the dependent claims – that the software updates be “automatically installed on the user station” over “the Internet” – do not make the claimed invention any less abstract. As such, the court concludes that the claims are directed to the abstract idea of distributing software updates to a computer.

Turning to step two of the *Alice* framework, the court examines whether the claims are limited by an “inventive concept” such that “the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Alice*, 134 S. Ct. at 2355. Here, the asserted claims recite several computer components including a “remote computer system,” “user station,” and “communications network.” (‘054 patent, col. 72:48-63) The specification elaborates that the “[c]ommunications network 20 can be **any electronic distribution system** suitable for transporting information objects” (*Id.* at col. 8:13-21) (emphasis added) The specification also states that “[r]eferences herein to the user’s station, workstation, computer or terminal will be understood to embrace any ‘information appliance’ or intelligent device having the **basic computer-like functions** of programmed logic, storage and presentation” (*Id.* at col. 27:2-6) (emphasis added) Motorola argues that the recitation of such generic computer components is insufficient to confer patent eligibility.

IV responds that the very fact that the invention may be used on most computers “is one of the reasons why the ‘054 patent claims are inventive.” (D.I. 363 at 6) The specification highlights a “flexible client interface” which operates “with any one of a number of online services by providing a generic client interface foundation . . . combined with a set of translators and protocol drivers capable of communicating the user’s functional requests to any one of a set of online services, using their corresponding proprietary protocols.” (‘054 patent, col. 24:45-54)¹⁰ Essentially, IV

¹⁰IV argues that the invention cannot be abstract because the patent examiner allowed the patent over various methods of distributing software updates described in the prior art and because Motorola raised no anticipation argument against the ‘054

argues that a computer program that functions across platforms and is capable of performing the claimed limitations is “doing far more than storing, transmitting, and receiving information.” (D.I. 363 at 10)

The recitation of specific hardware elements such as a “remote computer system,” “user station,” and “communications network,” when considered in light of the accompanying descriptions in the specification, is insufficient to confer specificity. See *Alice*, 134 S. Ct. at 2360 (finding that the recitation of “specific hardware” consisting of a “data processing system,” a “communications controller,” and a “data storage unit” were “purely functional generic”). Despite its claims that specific computer programs are necessary to implement the claimed invention, IV fails to identify any language in the claims or the specification demonstrating that the generic computer components function in an unconventional manner or employ sufficiently specific programming. Instead, through the bare recitation of the steps of “presenting,” “sending,” and “receiving,” the claims are “specified at a high level of generality,” which the Federal Circuit has found to be “insufficient to supply an inventive concept.” *Ultramercial*, 772 F.3d at 716. In *DDR*, the Federal Circuit found that the challenged patent was valid because it “specif[ied] how interactions with the Internet are manipulated to yield a desired result – a result that overrides the routine and conventional” aspects of the

patent at trial. (D.I. 363 at 2) Such arguments do not impact the court’s analysis, as the doctrines of anticipation and non-obviousness are distinct from the question of validity under § 101. See *IpLearn, LLC v. K12 Inc.*, Civ. No. 11-1026, 2014 WL 7206380 (D. Del. Dec. 17, 2014) (“A new idea, *i.e.*, one that is non-anticipated and non-obvious, does not, however, make an abstract idea patent eligible.”); *Amdocs (Isr.) Ltd. v. Openet Telecom, Inc.*, Civ. No. 10-910, 2014 WL 5430956, at *11 (E.D. Va. Oct. 24, 2014) (“The concern of § 101 is not novelty, but preemption.”).

technology. 773 F.3d at 1258-59. Here, instead of overriding a routine sequence of events, the claims apply conventional computer processes to automate the delivery of software updates. This conclusion is unaltered by the fact that the computerized delivery of software updates may have been more efficient and economical than prior art methods of delivering software updates. *Flook*, 437 U.S. at 590 (reasoning that "the Pythagorean theorem would not have been patentable, or partially patentable, because a patent application contained a final step indicating that the formula, when solved, could be usefully applied to existing surveying techniques."). Moreover, IV's arguments that the invention is patent-eligible because it can be used on most computers and because it provides a "generic client interface" only serve to underscore the conventional nature of the technology.

The pre-emption inquiry focuses on whether the patent "would risk disproportionately tying up the use of the underlying ideas." *Alice*, 134 S.Ct. at 2354; *Mayo*, 132 S.Ct. at 1294 (holding that "patents [that] would ... disproportionately t[ie] up the use of the underlying natural laws" are invalid for lacking patentable subject matter). IV argues that the patent preempts only "a particular computer-enabled method that identifies the software on the user's computer and displays a directory of available software updates that are not already installed on the user station." (D.I. 363 at 6) IV notes that the patent does not preempt all ways of updating software, given that the '054 patent does not claim multiple prior art methods of updating software such as receiving updates through the mail. (D.I. 363 at 5) However, limiting the invention to the field of computerized software updates does not make the concept patentable. See

Alice, 134 S.Ct. at 2358 (“the prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of [the idea] to a particular technological environment.”) (citations omitted). The asserted claims of the ‘054 patent preempt the field of computerized software updates, thereby monopolizing the abstract idea. As such, the court finds that the asserted claims of the ‘054 patent are invalid as being directed to unpatentable subject matter under 35 U.S.C. § 101.

2. The ‘450 Patent

Claim 1 of the ‘450 patent, the sole asserted independent claim, recites:

1. A method comprising:

coupling one or more subscriber customer premise equipment (CPE) stations with a base station over a shared wireless bandwidth using a packet-centric protocol; and

allocating said wireless bandwidth and system resources based on contents of packets to be communicated over said wireless bandwidth, wherein the contents of each packet include a packet header and wherein the allocating is responsive to at least one field in the packet header.

(‘450 patent, col. 81:54-62)

As directed by the Supreme Court in *Alice*, the court first “determine[s] whether the claims at issue are directed to one of those patent-ineligible concepts,” namely, laws of nature, natural phenomena, and abstract ideas. 134 S. Ct. at 2354-55. Motorola alleges that the asserted claims of the ‘450 patent are invalid under 35 U.S.C. § 101 because they claim the abstract idea of allocating wireless bandwidth based on packet contents. Motorola characterizes the two limitations of independent claim 1 as “coupling

generic stations over a shared bandwidth and then allocating bandwidth and resources based on [the] field in packet headers.” (D.I. 360 at 9)

IV does not dispute that bandwidth and packets themselves are not patentable subject matter. *In re Nuijten*, 500 F.3d 1346, 1357 (Fed. Cir. 2007) (“A transitory, propagating signal . . . is not a ‘process, machine, manufacture, or composition of matter.’”). Requiring that the wireless bandwidth be allocated based on contents of packets is likewise an abstract principal. Such a limitation ultimately results in the manipulation of data flow, but does not alter the data itself (i.e. the packet header). Even if altering the flow of data was a form of “manipulation,” the Federal Circuit has held that “[t]he mere manipulation or reorganization of data . . . does not satisfy the transformation prong” and involves abstract ideas. *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011).

Motorola analogizes the present claims to a recent Federal Circuit case in which the asserted claims were invalidated under 35 U.S.C. § 101 for being directed to “[d]ata in its ethereal, non-physical form.” *Digitech Image Technologies, LLC v. Electronics for Imaging, Inc.*, 758 F.3d 1344, 1350 (Fed. Cir. 2014). However, unlike the claims at issue in *Digitech*, claim 1 of the ‘450 patent “expressly ties the method” to a tangible machine in the form of CPE stations coupled to a base station over a shared wireless bandwidth. *Id.* at 1351. Even if, as Motorola argues, CPE stations are “generic communications devices” that do not render the asserted claims any less abstract, the ‘450 patent’s claims nonetheless satisfy step two of the *Alice* framework.

As directed by *Alice*, the court next examines whether the claims are limited by an "inventive concept" such that "the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself." *Alice*, 134 S. Ct. at 2355. Motorola argues that the limitation of connecting a CPE to a base station using shared wireless bandwidth is a "pre-solution step" that is incapable of transforming the abstract concept into patent-eligible subject matter. (D.I. 360 at 11) As for the second limitation of allocating bandwidth based on the contents of packets, Motorola argues that the patent provides no guidance as to what the contents are or how they are to be used to allocate the claimed resources. (*Id.*) Motorola contends that packets and their headers are fundamental elements of data communication, with the Internet as the most prevalent example of a network that uses packet switches to transfer data. See *In re Teles AG Informationstechnologien*, 747 F.3d 1357, 1367 (Fed. Cir. 2014).

The '450 patent distinguishes the claimed invention from prior art "circuit-centric" architecture, describing one of the advantages of the claimed method as providing "a QoS [quality of service] mechanism that can dynamically optimize system behavior to each particular IP flow, and can also adapt to changes with changing network load, congestion and error rates." ('450 patent, col. 15:6-9) IV's expert opined that the claimed improvement "schedules the flow of information on the network according to the claimed method as opposed to how it would otherwise proceed." (D.I. 363, ex. 2 at ¶ 26) The present invention does not merely claim an abstract idea and say "apply it with a computer." *Alice*, 134 S.Ct. at 2358. Like the claims in *DDR*, the present invention is "necessarily rooted in computer technology" and solves a "problem specifically arising in

the realm of computer networks.” 773 F.3d at 1257. Also like the claims in *DDR*, the present invention “specif[ies] how interactions with the [network] are manipulated to yield a desired result” by reallocating bandwidth based on the contents of packet headers. *Id.* at 1258. Even though claim 1 itself does not provide a detailed explanation of how packet headers are used to allocate the bandwidth, the inventive concept lies in the limitation of using packet headers to allocate bandwidth, not in the details of implementation. Dependent claims 2, 3, 5, 8 and 9 add additional specificity, reciting particular packet-centric protocols, particular coupling methodologies and particular generic packet types. For the foregoing reasons, the court finds that the asserted claims of the ‘450 patent are directed to patent-eligible subject matter.

B. Indefiniteness Under 35 U.S.C. § 112, ¶ 2

1. The ‘144 Patent

IV asserts claims 10, 26, and 41 of the ‘144 patent. Claim 10 teaches a method for transferring files, while claims 26 and 41 teach a communications device.

Representative claim 10 recites, in part:

10. A method for transferring files from a first device to a second device over a communications network, reciting in part:

displaying, on the first device, a collection of file identifiers, wherein each file identifier represents a selectable file;

receiving, at the first device, a user selection of at least one file identifier representing a file selected to be transferred to the second device;

displaying, on the first device, a collection of destinations identifiers, wherein each destination identifier represents a

remote device having a numbered destination address on a circuit switched or packet switched network;

receiving, at the first device, a user selection of at least one destination identifier as selection of the second device;

displaying, on the first device, a data entry field in which a text message can be entered;

receiving, at the first device, the text message;

encapsulating, at the first device, the text message with the selected file into a single combined file;

generating, at the first device, a **unique transaction identifier** that identifies a transfer of the single combined file

...

(‘144 patent, col. 38:46-67) (emphasis added)

Motorola alleges that the term “unique transaction identifier,” which appears in all asserted claims of the ‘144 patent, is indefinite under 35 U.S.C. § 112, ¶ 2. Motorola contends that use of the word “unique” requires that a single unshared identifier must be used for each transaction, but argues that neither of the examples provided in the specification – naming the file or using a random number generator to name a file – provide truly “unique” identifiers. (*Id.* at col. 21:35-66; figure 16; figure 15) For support, Motorola points to the testimony of IV’s expert that two files may be given the same name or have the same randomly generated number. (D.I. 360, ex. 4 at 89:20-25; 91:20-92:8)

The statements of IV’s expert, however, are consistent with IV’s position that a “unique transaction identifier” is something that “uniquely identifies a transfer of the single combined file.” (D.I. 363 at 17) Regarding the practice of naming files, IV’s expert acknowledged the possibility of re-generation of a name, but stated that “it’s up

to the user to then make sure that the file name is unique so there's no collisions." (D.I. 360, ex. 4 at 89:23-25) As for the example of using a random number generator, the expert's statement that the identifier must be "very unique" was a comment on the "very slim" likelihood of a random number generator generating the same number twice, not an attempt to reframe "unique" as a term of degree. (*Id.* at 92:4-11) The law only requires that the term "inform those skilled in the art about the scope of the invention with reasonable certainty." *Nautilus*, 134 S. Ct. at 2129. Given the "very slim" possibility of a random number generator generating the same number twice,¹¹ the court finds that the limitation "unique transaction identifier" provides reasonable certainty as to the scope of the invention and does not render the asserted claims of the '144 patent indefinite under 35 U.S.C. § 112, ¶ 2.¹²

2. The '450 Patent

Motorola alleges that the term "wireless bandwidth" is indefinite under 35 U.S.C. § 112, ¶ 2 because it is unclear from the patent which forms of media are defined as being wireless. Motorola points to the specification, which states: "It is important to note that CATV [cable television] is a wireless communication method." ('450 patent, col. 32:35-36; *see also* 32:45-47). Additionally, the patent states that the term "wireless

¹¹ In the example discussed by IV's expert, the "number space" for picking random numbers lies between zero and 10^{12} . (D.I. 360, ex. 4 at 92:19-25)

¹² Motorola also takes issue with IV's allegedly "shifting infringement theories" in its use of the term "a user" in its answering brief, but IV unambiguously states that its position remains unchanged from claim construction, in which it argued that "unique transaction identifier" is something that "uniquely identifies a transfer of the single combined file."

medium is used to broadly encompass . . . cable (e.g., coaxial cable) communications.” (*Id.* at 48:41-45) IV’s expert admitted that he “couldn’t reconcile” these examples from the specification with accepted definition of “wireless bandwidth.” (D.I. 360, ex. 1 at 83:9-10; 81:18-84:7) During prosecution, the examiner raised an indefiniteness challenge based on this very issue, writing that “[it] is not clear how a wireless communication comprises a cable communication medium.” (D.I. 225, ex. 25 at 5) In response, the applicant wrote that “[i]t would be clear to a person of ordinary skill in the art that broadband communication over a coaxial cable waveguide is a form of radio frequency (RF) communication which for the purposes of this specification is described as a wireless communication method. Applicant can of course ‘be his own lexicographer.’” (*Id.*)

Claim 1 of the ‘450 patent describes a method for coupling CPE stations with base stations over a “shared wireless bandwidth” and for allocating said wireless bandwidth. The claim does not use the words “wireless communication method” or “wireless medium,” the two terms specifically defined in the specification and prosecution history as including wired embodiments. The court, therefore, is presented with the difficulty of construing a term that is logically connected to, but not identical to, two terms in the specification that were defined at odds with their customary technical meaning. As a starting point, the court looks to the ordinary meaning of “wireless bandwidth,” which both parties’ experts agree means “without wires.” (D.I. 363, ex. D at 84:22-86:10; ex. E at 49:25-50:3, 57:21-25; Ex. F at 20-23) The specification provides additional context for the references to the wired communications cited, *supra*, noting

that “[t]he wireless communication medium can include at least one of: a radio frequency (RF) communications medium; a cable communications medium; and a satellite communications medium.” (‘450 patent, col. 4:40-43) When discussing the detailed description of the preferred embodiments, the specification clarifies that radio frequency (“RF”) communication over CATV coaxial cable is just one “alternative embodiment.” (*Id.* at col. 40:22-32) Finally, figure 1C “illustrates a conventional video network 150 such as, e.g., a cable television (CATV network)” and includes components such as a “video network,” “confluence cameras,” and “televisions.” (*Id.* at fig. 1C; col. 32:22-34) Claim 1 not only does not use the terms “wireless communication method” or “wireless medium,” but it also makes no mention of any of the elements belonging to the alternative wired embodiments (video networks, cameras, or televisions). As such, the court finds that claim 1 is limited to wireless embodiments, consistent with the customary meaning of “wireless bandwidth.” Claim 1, therefore, is not indefinite under 35 U.S.C. § 112, ¶ 2. Under this construction, however, IV is estopped from asserting that wired mediums – such as coaxial cable transmitting CATV communications – infringe claim 1 of the ‘450 patent.

V. CONCLUSION

For the foregoing reasons, defendant’s motion for summary judgment of invalidity and indefiniteness (D.I. 360) is granted in part and denied in part. An appropriate order shall issue.